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# TRANSMITTAL FORM

*(to be used for all correspondence after initial filing)*

| | |
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| Application Number | 09/850,149 |
| Filing Date | May 8, 2001 |
| First Named Inventor | Clifton A. Rau |
| Art Unit | 2128 |
| Examiner Name | Hugh M. Jones |
| Attorney Docket Number | CARAU001 |

Total Number of Pages in This Submission

## ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
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- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☑ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☑ Other Enclosure(s) (please Identify below):

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Remarks

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|---|---|---|---|
| Firm Name | Potomac Patent Group, PLLC | | |
| Signature | | | |
| Printed name | Steven M. duBois | | |
| Date | April 24, 2006 | Reg. No. | 35,023 |

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| Signature | | | |
| Typed or printed name | Steven M. duBois | Date | April 24, 2006 |

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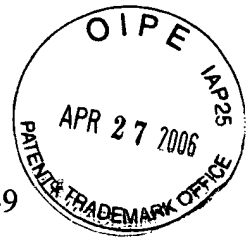
Patent
Attorney's Docket No. CARAU001

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| In re Patent Application of | ) | **BOX Appeal Brief-Patents** |
| | ) | |
| Clifton A. RAU | ) | Group Art Unit: 2128 |
| | ) | |
| Application No.: 09/850,149 | ) | Examiner: Hugh M. Jones |
| | ) | |
| Filed: May 8, 2001 | ) | |
| | ) | |
| For: MODEL RAILROAD CONTROL AND DISPLAY SYSTEM | ) | |

**CORRECTED APPEAL BRIEF PURUSANT TO 37 C.F.R §41.37**

Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

Further to the Notice of Appeal filed on October 31, 2005 in connection with the above-identified application and the notification of Non-Compliant Appeal Brief dated March 31, 2006, submitted herewith is the corrected Appeal Brief. Since the originally filed specification did not include page numbers, references herein to pages of the as-filed application begin with the cover sheet as page one:

(i) REAL PARTY IN INTEREST

The real party in interest is Clifton A. Rau.

(ii) RELATED APPEALS AND INTERFERENCES

To the best of the undersigned's knowledge, there are no related appeals or interferences.

(iii) STATUS OF CLAIMS

Claims 1-11, 13-15 and 18-20 are currently pending, have all been finally rejected and are all the subject of this appeal. Claims 12 and 16-17 have been cancelled.

(iv) STATUS OF AMENDMENTS

No Amendments have been submitted in this application subsequent to the Final Office Action.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to model railroads and user interfaces for facilitating operation of model railroads. Model railroad hobbyists have, for decades, laboriously constructed elaborate railroad track layouts and electrical controls for operating model trains running on their tracks. The advent of the personal computer provided a technology which can be harnessed to ease control of these systems, some of which are remarkably complex.

According to exemplary embodiments of the present invention, independent claim 1 describes a software program stored on a computer-readable medium for monitoring and controlling a model railroad, the software program operable to perform the steps of: displaying a representation of the model railroad layout on a display wherein a first portion of the model railroad layout is displayed using a first visual characteristic and a second portion of the model railroad layout is displayed using a second visual characteristic (see, e.g., page 7, lines 4-6 of the application), wherein the first portion is selected to allow train movement thereon, and wherein the second portion is deselected to prevent train movement thereon (see, e.g., page 7, lines 6-9 of the application); and editing the representation of the model railroad layout (see, e.g., page 8, lines 2-23 of the application).

According to exemplary embodiments of the present invention, independent claim 11 describes an interface unit (see, e.g., figure 2 item 22 of the application) operable to translate a command received from a computer into a motor control command for controlling at least one element within a model railroad system (see, e.g., page 9, lines 11-13 of the application), the interface comprising: a plurality of addressable units for receiving address information and data information within the command, wherein one of the plurality of addressable units that corresponds to the address information within the command translates the data

information into the motor control command and outputs the motor control command, wherein the plurality of addressable units includes a set of decoders and a plurality of addressable registers (see, e.g., page 9, lines 13-29 and figure 4 of the application), and wherein the command includes three address bits, four group bits and one data bit (see, e.g., page 6, lines 11-12 of the application).

According to an exemplary embodiment of the present invention, independent claim 20 describes a model railroad system comprising: a graphical user interface displaying a representation of the model railroad system on a display, wherein a first portion of the model railroad layout is displayed using a first visual characteristic and a second portion of the model railroad layout is displayed using a second visual characteristic (see, e.g., page 7, lines 4-6, of the application), wherein the first portion is selected to allow train movement thereon, and wherein the second portion is deselected to prevent train movement thereon (see, e.g., page 7, lines 6-9 of the application); the graphical user interface including an editing function that selectively permits a user to, rotate, move, delete and join a track portion based on a type of track portion which is selected (see, e.g., figure 3c and page 8, lines 2-21 of the application); and an interface unit (see, e.g., figure 2 item 22 of the application) controlled by the graphical user interface to translate a command received from a computer into a motor control command for controlling at least one element within a model railroad system (see, e.g., page 9, lines 11-13 of the application), the interface unit including: a plurality of addressable units for receiving address information and data information within the command, wherein one of the plurality of addressable units that corresponds to the address information within the command translates the data information into the motor control command and outputs the motor control command, wherein the plurality of addressable units

includes a set of decoders and a plurality of addressable registers (see, e.g., page 9, lines 13-29 and figure 4 of the application), and wherein the command includes three address bits, four group bits and one data bit (see, e.g., page 6, lines 11-12 of the application).

(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The ground of rejection raised by the Examiner is listed below. Appellant requests review of this ground of rejection on appeal.

a. Claims 1-11, 13-15 and 18-20 stand rejected under 35 U.S.C § 102(e) as being anticipated by Tanner et al. (U.S. Patent Number 6,445,150 B1).

(vii) ARGUMENT

The cited Tanner patent discloses an apparatus and method for controlling electrical devices such as electric trains using a computer, however, many of the features that are claimed by Appellant are not disclosed in the Tanner patent and, therefore, Tanner cannot reasonably be said to be anticipatory thereof. Specific examples of Appellant's claimed features that are not disclosed by Tanner will be shown below with respect to the claims.

**Independent Claim 20**

A model railroad system comprising:
a) a graphical user interface displaying a representation of said model railroad system on a display, wherein a first portion of said model railroad layout is displayed using a first visual characteristic and a second portion of said model railroad layout is displayed using a second visual characteristic, wherein said first portion is selected to allow train movement thereon, and wherein said second portion is deselected to prevent train movement thereon;
b) said graphical user interface including an editing function that selectively permits a user to, rotate, move, delete and join a track portion based on a type of track portion which is selected; and
c) an interface unit controlled by said graphical user interface to translate a command received from a computer into a motor control command for controlling at least one element within a model railroad system, said interface unit including:
a plurality of addressable units for receiving address information and data information within said command, wherein one of said plurality of addressable units that corresponds to said address information within said command translates said data information into said motor control command and outputs said motor control command, wherein said plurality of addressable units includes a set of decoders and a plurality of addressable registers, and wherein said command includes three address bits, four group bits and one data bit.

In the Official Action dated July 26, 2005 it is difficult to discern how the Examiner came to the conclusion that all of the elements of claim 20 are clearly disclosed in Tanner. Comparing Applicant's claim 20 combination to the cited sections of Tanner, at least 3 claim elements are not disclosed either by themselves or as part of the entire claimed combination.

For example, with respect to claim element a), the cited sections of Tanner (col. 15, lines 21-50, fig. 15-19, col. 9, line 40 to col.10, line 19, col. 13, lines 24-35, and fig. 10-11) describe software that can enable/disable certain sections of a layout, and that a pair of polarity buttons can be used to visually control the direction of travel of the turnout.

However, that is not the same as Applicant's claim element a) wherein a first portion of said model railroad layout is displayed using a first visual characteristic and a second portion of said model railroad layout is displayed using a second visual characteristic, wherein said first portion is selected to allow train movement thereon, and wherein said second portion is deselected to prevent train movement thereon. In one exemplary embodiment, and as set forth e.g., in claim 19, the first visual characteristic is the color green and the second visual characteristic is the color red, such that the resulting train layout shown on the user interface is green in the areas where a train can currently run and red in the areas where a train currently can not run. It is respectfully submitted that the "polarity buttons" of Tanner for visual control of the direction of the turnout, is not the same as providing the claimed visual characteristics which quickly inform the user which portions of the layout are active/inactive.

With respect to claim element b) Appellant respectfully disagrees that Tanner discloses an editing function that selectively permits a user to rotate, move, delete and join a track portion based on a type of track portion which is selected. Instead, the cited portion of Tanner (figs. 3, 10, 13-19, and corresponding text) merely describes that a menu driven interface provides an easy to use interface that can be customized to conform to a specific user's layout, and that the functions of displaying a motor profile, selecting an area of the layout for enabling or disabling, and zooming exist. This general reference in Tanner is insufficient to anticipate Appellant's claimed editing function.

With respect to claim element c) while the cited sections of Tanner (col.5, lines 40-53, col. 10, lines 20-51, col. 11 lines 23-54, col. 14, lines 16-58, figs. 4A, 11 and 12) do describe using an 8-bit solenoid address and a 4-bit addressing scheme, this is not identical to Appellant's claim element c) wherein the command includes three address bits, four group

bits and one data bit. Since anticipation requires identical disclosure of the claimed element, this deficiency also renders the rejection of claim 20 as anticipated by Tanner improper.

**Independent Claims 1 and 11**

The elements of independent claims 1 and 11 are also not identically disclosed by Tanner for different subsets of the reasoning set forth above with respect to claim 20. Specifically claim 1 recites "wherein a first portion of said model railroad layout is displayed using a first visual characteristic and a second portion of said model railroad layout is displayed using a second visual characteristic, wherein said first portion is selected to allow train movement thereon, and wherein said second portion is deselected to prevent train movement thereon." This feature is not disclosed in Tanner, as described above with respect to claim 20. Claim 11 recites "wherein said plurality of addressable units includes a set of decoders and a plurality of addressable registers, and wherein said command includes three address bits, four group bits and one data bit." This feature is also not disclosed in Tanner, as described above with respect to claim 20.

**Dependent Claims 14, 15, 18 and 19**

Each of the dependent claims 14, 15, 18 and 19 also include elements not disclosed in Tanner, nor were sections of Tanner specifically cited by the Examiner to support the position that Tanner allegedly anticipates these claims. For claim 14, Tanner does not disclose a triac connected to each of the resistors in a resistor bank. For claim 15, Tanner does not disclose a coil latching relay connected to each of said plurality of addressable registers. For claim 18, Tanner does not disclose wherein editing comprises the steps of:

identifying a graphic type associated with a type of model railroad track to be edited; and providing a list of editing functions based on the type of track to be edited, wherein said list includes a joining function if said track to be edited is a turnout section, a change length function if said track to be edited is a straight section and a trim function if said track to be edited is a curved section. For claim 19, Tanner does not disclose wherein said first visual characteristic is green; and said second visual characteristic is red.

**Dependent Claims 2-10 and 13**

Dependent claims 2-10 and 13 stand rejected under 35 U.S.C. § 102(e) over Tanner et al. It is respectfully submitted that these dependent claims are allowable for at least the reasons set forth above with respect to the independent claims from which they depend.

**Conclusions to Arguments**

Claims 1-11, 13-15 and 18-20 stand rejected under 35 U.S.C § 102(e) as being anticipated by Tanner et al. For at least the foregoing reasons, it is respectfully submitted that the claims are patentable over the documents cited. Accordingly, it is respectfully requested that the Final Rejection in the Official Action of July 26, 2005 be REVERSED.

Respectfully submitted,

POTOMAC PATENT GROUP PLLC

By: _____

Steven M. duBois
Registration No. 35,023

Date: April 24, 2006

(viii) CLAIMS APPENDIX

1. A software program stored on a computer-readable medium for monitoring and controlling a model railroad, said software program operable to perform the steps of:

displaying a representation of said model railroad layout on a display wherein a first portion of said model railroad layout is displayed using a first visual characteristic and a second portion of said model railroad layout is displayed using a second visual characteristic, wherein said first portion is selected to allow train movement thereon, and wherein said second portion is deselected to prevent train movement thereon; and

editing said representation of said model railroad layout.

2. The software program of claim 1, wherein said step of editing said representation further comprises the step of:

moving a track element within said representation of said model railroad layout.

3. The software program of claim 2, wherein said track element is one of a straight track piece, a turnout and a curved track piece.

4. The software program of claim 2, wherein said step of moving said track element further comprises the step of:

rotating said track element.

5. The software program of claim 1, wherein said step of editing said representation further comprises the step of:

joining two turnouts together, whereby said two turnouts can be controlled jointly.

6. The software program of claim 1, wherein said step of editing said representation further comprises the step of:

changing a turnout element within said representation of said model railroad layout from a first position to a second position.

7. The software program of claim 6, further comprising the step of:

outputting, responsive to said changing a turnout element step, a command to a motor associated with said turnout element in said model railroad layout, to switch said turnout element from said first position to said second position.

8. The software program of claim 7, wherein said command includes an address of associated with said turnout element and at least one data bit.

9. The software program of claim 1, wherein said step of editing said representation further comprises the steps of:

creating a new element within said representation of said model railroad;

assigning an address to said new element; and storing said address of said new element.

10. The software program of claim 1, further comprising the step of:

outputting, responsive to said changing step, an addressed command to a an element within said model railroad layout that corresponds to an element which was changed within said representation.

11. An interface unit operable to translate a command received from a computer into a motor control command for controlling at least one element within a model railroad system, said interface comprising:

a plurality of addressable units for receiving address information and data information within said command, wherein one of said plurality of addressable units that corresponds to said address information within said command translates said data information into said motor control command and outputs said motor control command, wherein said plurality of addressable units includes a set of decoders and a plurality of addressable registers, and wherein said command includes three address bits, four group bits and one data bit.

12. (Cancelled)

13. The interface unit of claim 11, further comprising:
a resistor bank connected to each of said plurality of addressable registers.

14. The interface unit of claim 13, further comprising:
a triac connected to each of said resistors in said resistor bank.

15. The interface unit of claim 11, further comprising:
a coil latching relay connected to each of said plurality of addressable registers.

16. (Cancelled)

17. (Cancelled)

18. The software program of claim 1, wherein editing comprises the steps of:
identifying a graphic type associated with a type of model railroad track to be edited; and
providing a list of editing functions based on the type of track to be edited, wherein said list includes a joining function if said track to be edited is a turnout section, a change length function if said track to be edited is a straight section and a trim function if said track to be edited is a curved section.

19. The software program of claim 1, wherein said first visual characteristic is green; and
said second visual characteristic is red.

20. A model railroad system comprising:
a graphical user interface displaying a representation of said model railroad system on a display, wherein a first portion of said model railroad layout is displayed using a first visual

characteristic and a second portion of said model railroad layout is displayed using a second visual characteristic, wherein said first portion is selected to allow train movement thereon, and wherein said second portion is deselected to prevent train movement thereon;

said graphical user interface including an editing function that selectively permits a user to, rotate, move, delete and join a track portion based on a type of track portion which is selected; and

an interface unit controlled by said graphical user interface to translate a command received from a computer into a motor control command for controlling at least one element within a model railroad system, said interface unit including:

a plurality of addressable units for receiving address information and data information within said command, wherein one of said plurality of addressable units that corresponds to said address information within said command translates said data information into said motor control command and outputs said motor control command, wherein said plurality of addressable units includes a set of decoders and a plurality of addressable registers, and wherein said command includes three address bits, four group bits and one data bit.

(ix) EVIDENCE APPENDIX

None.

(x) RELATED PROCEEDINGS APPENDIX

None.